

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 June 2006 (22.06.2006)

PCT

(10) International Publication Number
WO 2006/065235 A3

(51) International Patent Classification:

F16F 9/06 (2006.01) *B62K 25/06* (2006.01)
F16F 9/34 (2006.01) *B62K 25/08* (2006.01)
F16F 9/44 (2006.01)

(21) International Application Number:

PCT/US2004/041559

(22) International Filing Date:

10 December 2004 (10.12.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:

US 10/888,080 (CON)
Filed on 8 July 2004 (08.07.2004)

(71) Applicant (for all designated States except US): **FOX FACTORY, INC. (DBA FOX RACING SHOX)**
[US/US]; 130 Hangar Way, Watsonville, CA 95076 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **JANES, Dustin, F.**
[US/US]; 315 D. Sumner St., Santa Cruz, CA 95062 (US).

(74) Agent: **GLENN PATENT GROUP**; 3475 Edison Way
Ste. L., Menlo, CA 94025 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

Published:

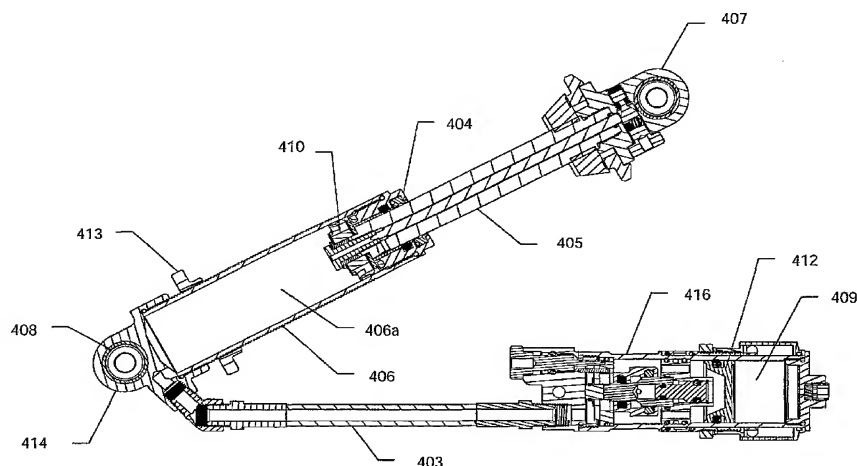
— with international search report

(88) Date of publication of the international search report:

18 January 2007

[Continued on next page]

(54) Title: SHOCK ABSORBER WITH PRESSURE-CONTROLLED DAMPING



(57) Abstract: A damper (400) including a pressure-sensitive damping control circuit that selectively permits fluid flow from a first chamber (406a) to a second chamber (448). A piston (410) is supported for reciprocation to vary a volume of the first chamber. A blow-off piston (429) is movable between a closed position, wherein fluid flow through the control circuit is substantially prevented, and an open position, wherein fluid flow through the control circuit is permitted. The damper also includes a first source of pressure. A fluid pressure created by compression of the damper applies an opening force to the blow-off piston tending to move the blow-off piston in a direction toward the open position against a resistance force provided by the first source of pressure. The resistance force is greater than the opening force until the pressure created by forces tending to insert the piston rod into the first fluid chamber exceeds the pressure in the first source of pressure by a predetermined amount.

WO 2006/065235 A3



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.